

Binge on proteins

ESSENTIAL Protein is the body's nutritional powerhouse, a critical need for both adults and children at every stage of life. But are we getting enough of this vital nutrient, wonders **Dr Muhammed Majeed**

A recent nationwide survey conducted revealed interesting things: 80% Indian diets are protein deficient. About 91% non-vegetarians and 85% vegetarians among Indians are deficient in protein and the protein content in Indian diet is 37% versus world average of 65%. This is certainly eye-opening!

Indian diet is primarily vegetarian and cereal-based. Thus, it is heavier in carbohydrates and fats rather than proteins. Proteins are the building blocks of muscles, bones, hormones, skin cells and tissues, found throughout the body, in every tissue — hair, skin, muscles or bone. Being responsible for the regeneration of our body cells, proteins are responsible for numerous chemical reactions. They are also present in the haemoglobin pigment of the blood that carry oxygen to every part of body to make the tissues function better.

Proteins helping in healing of wounds and supports one to recover rapidly from any injury. In adults, they also prevent hair loss and general weakness. Protein is found both in vegetarian and non-vegetarian food. However, vegetarians may find it difficult to get enough as the protein found in plants are limited. In such cases, vegetarians are advised to take protein shakes and supplements in addition to other protein-rich foods that they can eat. It is recommended for adults to get a minimum of 0.8 gram of proteins per day for every kilogram of body weight.

Telltale signs

When your body isn't getting enough protein intake to function well, it gives you signals that something is wrong. Severely restrictive diets, lack of knowledge about nutrients, among other factors can contribute to protein deficiency. However, protein deficiency is nothing to fool around with either — this condition can lead to gallstones' formation, arthritis, muscle deterioration, and sometimes, heart problems. Some of the most common symptoms are:

■ **Edema:** Edema is a collection of fluid under the skin, which commonly affects

the legs, feet, and ankles but can occur anywhere in the body. Protein is essential for maintaining a balance of water in your body; without which water is not stored properly.

■ **Weight loss:** Severe weight loss is one symptom of protein deficiency. It may be attributed to muscle wastage, as your body breaks down your muscles in an attempt to get protein from them.

■ **Thinning or brittle hair:** Hair loss and thinning of hair could be due to protein deficiency. Hair is made up of protein, so a deficiency may cause your hair to become brittle and even fall. Healthy hair is certainly the sign of consuming the right amount of protein.

■ **Ridges in nails:** Ridges or white lines in both finger and toenails can be caused by lack of protein in the diet. Ridges that run from top to bottom on the nail can indicate an ongoing protein deficiency, while a ridge that runs transverse may indicate a deficiency that has now passed.

■ **Pale skin:** Skin that loses pigments and burns

more easily in the sun can be caused by a lack of iron as well as protein. Frequently, foods that are rich in iron do contain protein and protein is necessary for the body to utilise iron properly. Anaemia or lack of iron may result in pale skin and other diseases.

■ **Skin rashes:** Skin rashes, which may be accompanied by dry or flaking skin, are a symptom of a protein deficiency. These rashes are caused by extreme protein deficiency and may resemble eczema or other skin rashes.

■ **General weakness:** Weakness and lethargy may be caused by a lack of protein in the diet. Over time, as the stores of protein are depleted, the body will begin to break down muscle tissue, which can lead to a feeling of general weakness or lethargy.

■ **Slow healing:** Amino acids, the building blocks of protein, are crucial in the healing of wounds. As the body heals itself, it needs to repair or produce additional tissues. These tissues use amino acids, the building blocks of protein in the repairs, the lack of which can lead to a slower building process.

■ **Difficulty in sleeping:** Sleeping disorders could be caused by serotonin deficiency, which is caused by a lack of certain amino acids. These amino acids are produced when protein is broken down, and a diet with insufficient protein could lead to this condition.

■ **Headache:** The reasons for headaches could be many, including protein deficiency.

Lack of protein may lead to headaches either by causing anaemia or low blood sugar.

■ **Fainting:** Fainting and general weakness may be caused by a protein deficiency. This may be attributed to low blood sugar or the body's need to break down muscle tissue to get the nutrients it badly requires.

■ **Other symptoms:** Not all of the symptoms of protein deficiency are physical. Some are emotional like crankiness, moodiness, problems with conflict resolution, severe depression, anxiety, lack of energy, no desire to do things, among others.

Time for repair

Seems like a real problem, doesn't it? But don't worry. Protein deficiency can be easily prevented. Here's how to make protein a part of your diet for long-term good health.

■ **Quantity matters:** This differs according to age, gender, weight and state of health. As a guide, most adults need up to three serves of protein per day, which is equivalent to 65 gram of cooked lean meat, two eggs, one cup of milk, or ½ cup of nuts or seeds. Adequate protein intake is required for the structure, function and regulation of the body's cells, including muscles, skin, hair, nails, hormones, enzymes and antibodies.

■ **Choose your protein wisely:** Proteins are of two types: plant-based such as soy, nuts, legumes and grains; and animal-based such as meat, dairy and eggs. When choosing protein-rich foods, pay attention to what comes along with the protein. Vegetable sources of protein offer healthy fibres, vitamins and minerals. The best animal protein choices are fish, skinless chicken, eggs, low-fat dairy and lean cuts of red meat. Processed meat (bacon, sausages, ham), full-fat dairy, and fast food contain saturated fat too and hence, their intake has to be limited.

The quality and quantity of protein should be defined and consumed accordingly. That apart, regular exercises to keep diabetes, cardiovascular diseases, osteoporosis and some types of cancer at bay are vital too.

(The author is founder & chairman, Sami Labs)

